REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-15 and 17 stand rejected under 35 U.S.C. §102(b) as being anticipated by Dodds et al., No. 4,972,365. In addition, Claims 16 and 18 stand rejected under 35 U.S.C. §103 as being obvious over Dodds et al. in view of Saitoh et al., No. 6,038,486. Applicants respectfully traverse these rejections.

As stated previously, processing stations are generally known. Such processing stations are normally part of a modular processing assembly and testing system for the processing, assembly, machining and testing of products. Such processing stations are for example used for assembling mobile phones. Each processing station within the assembly system has at least one given function to be carried out on the product. For example, the function can be the connection of two parts of a housing, for example the mobile phone housing. An other function may be the marking of a housing part with a laser, for example writing a serial number on the housing part. These functions are automatically performed in the processing stations. In addition, an assembly system also comprises for example manual processing stations, where functions are manually performed, as well as pure transfer stations which only convey pallets carrying the products.

For controlling these functions, the processing station comprises a basis controller on which the respective software runs. The software controls the operation of the respective process modules and coordinates the operation of the whole processing station with the other processing stations of the assembly system.

In addition to the basis controller each process module also comprises a controller (process module controller) which operates in a way comparable to a client in a client-server system. Hence, the controller of the process module communicates with the basis controller.

According to the present invention the process module carries the program to be run on the basis controller or at least carries the information where the program is stored. This allows the process module to be plugged into the processing station without the necessity of having an operator transfer and install any software. In contrast, the program data administrator unit "substitutes" for the operator and supplies all necessary information concerning the transfer of the program associated with the process module.

Thus, the present invention "makes the process module intelligent", meaning that the process module carries the information about the location of the program to be run on the basis controller (or alternatively on the process module controller). This information is used by the program data administrator unit when the process module is plugged into the processing station.

Based on this information, the program may then be fetched from the stored location (program data memory) and supplied to the program control unit where the program is to be run.

It is to be noted that the process module does not receive the requested program from the basis controller. Rather, the program is transferred either from an external program data memory (e.g. via internet) or from a program data memory which is part of the process module itself.

The Dodds reference discloses a system which is comprised of a main controller and I/O modules coupled with the main controller. The I/O modules are adapted with the main controller. The I/O modules are adapted to receive and transmit input and output information, e.g. to control machines etc., in real time. The main controller in turn receives status information and transmits program files from and to the I/O modules. The main controller is hence comparable to a supervisor unit.

It is, however, explicitly pointed out in Dodds at column 4, lines 55 ff., column 7, last paragraph, or column 28, lines 31 ff., that the program to be run on the I/O module is downloaded from the main controller.

That is, Dodds clearly teaches an approach which substantially corresponds to the approach described in the introductory portion of the description. Particularly, Dodds teaches to store the required software for running an I/O module on the main controller unit. This software has to then be transmitted to the I/O module after connecting it with the I/O module adapter. Thus, Dodds does not teach to "make the I/O module intelligent". In contrast Dodds discloses a solution which uses the "classic" approach, namely to store the necessary information on the main controller.

Applicants have amended independent Claims 1 and 8 to emphasize the above-noted distinctions. In addition, new independent Claims 19-24 have been added which also expressly recite the above-noted distinctions.

Accordingly, the present application is believed to be in condition for allowance. Favorable reconsideration is respectfully solicited.

Respectfully submitted,

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